Applicant : von Bergeń et al.
Serial No. : 10/625,908
Filed : July 24, 2003
Page : 7 of 10

Attorney's Docket No.: 13909-119001 / 2003P00132
US

REMARKS

This application has been carefully reviewed in light of the Office Action dated December 16, 2005. Claims 1 to 24 are in the application, of which claims 1 and 11 to 20 have been amended. Claims 1, 11 and 21 are the independent claims. Reconsideration and further examination are respectfully requested.

Claim 1, which was objected to for alleged informalities, has been amended in accordance with the Examiner's suggestion in order to clarify this feature recited in claim 1. Reconsideration and withdrawal of the objection are therefore respectfully requested.

Claim 1 was also provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claim 11 of co-pending U.S. Patent Application No. 10/625,897. Without conceding the correctness of this provisional rejection, and in accordance with the Examiner's suggestion, Applicants' undersigned representative has filed a terminal disclaimer in compliance with 37 C.F.R. § 1.321(c) herewith. Withdrawal of the obviousness-type double-patenting rejection and further examination are respectfully requested.

Claims 11 to 20 were rejected under 35 U.S.C. § 101, for allegedly being directed to non-statutory subject matter. Without conceding the correctness of this rejection, claims 11 to 20 have been amended in accordance with the Examiner's suggestion. As such, withdrawal of the § 101 rejection and further examination are respectfully requested.

Claims 1 to 24 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,784,699 ("McMahon"). Withdrawal of the § 102 rejection and further examination are respectfully requested.

The present invention generally concerns application-level memory management in a computer system, in which a block of memory is divided into frames, each of the frames is divided into instances, and an application-defined instance type is associated with the instances.

Referring to specific claim language, independent claim 1 describes a method for allocating memory in a computer system. A request is output from an application to an operating system for allocation of a block of memory by the operating system to the application, and the block of memory is accessed for the application. The block of memory is divided into frames,

Applicant : von Bergen et al.
Serial No. : 10/625,908
Filed : July 24, 2003
Page : 8 of 10

Attorney's Docket No.: 13909-119001 / 2003P00132
US

and each of the frames is divided into instances. An application-defined instance type is associated with the instances for data storage using the instances.

Independent claim 11 describes a software application tangibly embodied on a computer-readable medium using application-level memory management. The software application includes an application-level memory manager operable to allocate a block of memory to store data elements, divide the block of memory into frames, and divide each frame into instances. The software application also includes application code operable to define data elements as having an instance type, and to associate the instance type with the instances for storage of the data elements in the instances.

Independent claim 21 describes a method, including the steps of associating data elements used by an application with an application-defined instance type, and associating the application-determined instance type with an application-determined one of a plurality of blocks of memory allocated by an operating system, where the application-determined memory block is divided into frames that are further divided into instances. The method also includes the step of populating the instances with the data elements.

The applied art is not seen to disclose the features of the present invention. In particular, McMahon is not seen to teach or suggest at least the features of dividing each of the frames into instances and associating an application-defined instance type with the instances.

In more detail, McMahon is seen to describe a computer system which implements a memory allocator that employs a data structure to maintain an inventory of dynamically allocated memory available to receive new data. *See* McMahon, col. 4, ln. 58 to col. 5, ln. 8; and Abstract. On pages 7 and 9, the Office Action asserts that column 5, lines 50 to 59 of McMahon describe the feature of dividing each of the frames into instances and associating an application-defined instance type with the instances. Applicants respectfully disagree. Specifically, although the cited portion of McMahon generally describes the division of memory blocks, nowhere is McMahon seen to describe these divided memory blocks as frames, nor is McMahon seen to divide each of the frames into instances or associate an application-defined instance-type with the instances.

Applicant : von Bergen et al.   Attorney's Docket No.: 13909-119001 / 2003P00132
Serial No. : 10/625,908   US
Filed   : July 24, 2003
Page   : 9 of 10

As to this latter point, although the italicized arguments presented in the Office Action are acknowledged, Applicants note that these arguments are unsupported by specific citation to any reference, and respectfully direct the Examiner's attention to MPEP § 706 and 37 C.F.R. § 104, which require that "the particular part [of a reference] relied on must be designated as nearly as practicable." *See* 37 C.F.R. § 104(c)(2). When such prior art is cited with particularly, the pertinence of the particular part should then be explained. *See* MPEP § 707.05. In the absence of such a citation, the § 102(b) rejection should be withdrawn.

Accordingly, McMahon is not seen to disclose at least the features of dividing each of the frames into instances and associating an application-defined instance type with the instances.

Based on the foregoing amendments and remarks, independent Claims 1, 11, and 21 are believed to be allowable over the applied reference. The other rejected claims in the application are each dependent from the independent claims and are believed to be allowable over the applied reference for at least the same reasons. Because each dependent claim is deemed to define additional aspects of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.
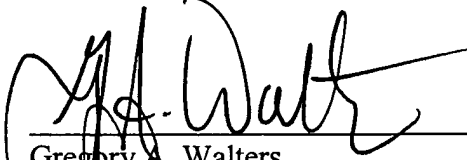
No fees are believed to be due at this time. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: MARCH 16, 2006

Gregory A. Walters
Reg. No. 41,366

Fish & Richardson P.C.
1425 K Street, N.W.
11th Floor
Washington, DC 20005-3500
Telephone: (202) 783-5070
Facsimile: (202) 783-2331

40321579.doc